

IMPENDING DISRUPTION: THE EFFECT OF E-COMMERCE ON THE FUTURE OF GROCERY RETAIL

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Abstract

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The rise of the Internet and E-commerce fundamentally changed society and disrupted all industries. Over the past 30 years traditional retail has struggled to adapt to the new distribution channels. Most retailers could not meet customers rising expectations and beat out competition without shrinking margins. Thus, traditional retail has been plagued by bankruptcies, consolidation, and store closings. Other sectors of retail, notably the grocery sector, are in earlier days of transformation. Today, grocery retailers face similar trends, competitive pressures, and evolving consumer behaviors as the overall retail industry. Through observing and analyzing past and current trends in the space, I predict a large future growth of grocery e-commerce. Consequently, three other fundamental changes will follow: omni-channel distribution, consolidation, and a different physical grocery store.

Acknowledgements

Approaching the end of my time on the forty acres and my thesis process, I would like to thank some of the individuals that helped me get to where I am now.

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Chapter I: Preface

I flip open my laptop and begin typing “*On Liberty* by John Stuart Mill paperback” into my web browser. About 537,000 results pop up and I quickly see dozens of options for purchase – new, used, paperback, hard cover, 99 cents, \$15.47. The internet allows me to find the exact version – size, shape, price, and color of my liking – of a product as standard as a book for my Plan II signature course. The lazy, impatient Gen-Z consumer in me purchases my textbook two days before fall classes begin from my bed and receives it at my doorstep a day later. While I’m at it, I open a new tab, go to Amazon, and purchase the spirals, pens, highlighters, and printer paper I will need for the semester. As I make all my last-minute purchases for the coming semester from the comfort of my apartment, my mind can’t help but wonder how my grandparents and parents ever survived without these platforms I have come to consider commonplace.

My desire to write on e-commerce stems from my experience as an online shopper. As I went off to college, I took autonomy over my own purchases: food, books, clothes, and much more. I quickly realized how many of my purchases were made online compared to actual stores. Due to a mix of busyness, convenience, and laziness I chose to make the bulk of my purchases online. I had access to a much wider range of products online and was able to take advantage of sales much easier through email alerts. During my semester abroad, I was not able to make the same online purchases as I did in the States. I lacked equal access to Amazon and felt restricted. In this time, I realized how much I depended on e-commerce. Further, I was intrigued by the juxtaposition of my generation’s dependence on e-commerce and previous generations lack of e-commerce. I wondered how my parents’ and grandparents’ purchasing habits differed from my own and how my habits would likely differ from those of future generations. Although it is hard

to imagine, the world wide web is relatively new, and the way people shop has drastically changed in a short amount of time because of it. Thus, I wanted to examine the rise of e-commerce and its subsequent revolution. In this paper, I will examine both an industry e-commerce has already radically transformed, traditional retail, and one it is currently transforming, food retail.

Chapter II: Introduction

In 1991 a Swiss computer programmer, Tim Berners-Lee, drastically transformed the internet into the world wide web we know today. The Internet was no longer merely an avenue to send files from one place to another, but a connected web of information that anyone, anywhere could access. The following year Congress decided the Internet could be used for commercial purposes.¹ Quickly, companies rushed to create their own websites and e-commerce was born. People began selling and purchasing items over the Internet. The Internet, and e-commerce more specifically, has disrupted nearly every industry. One of the most obvious targets for e-commerce was traditional retail such as clothes, books, and accessories. Why go to the mall to Christmas shop or buy a dress for an upcoming event, when you can browse stores around the globe and compare prices all from the comfort of your own home?

A number of other industries were surprisingly changed by the global system of interconnected computers that linked buyers and sellers. Take the alcohol industry, for example. Historically, alcohol producers followed a three-tier distribution system that required their products be passed from producers, to wholesalers, to retailers. E-commerce allowed alcohol producers to bypass liquor stores and sell their product directly to consumers. Thus, producers were more focused on branding to differentiate their products online. In 2015, online alcohol delivery generated \$2 billion in revenue.² Another example, the death care industry, was also disrupted by the rise of e-commerce. An average funeral costs between \$8,000 and \$10,000, and

¹ History.com Editors. "The Invention of the Internet." *History.com*, A&E Television Networks, 30 July 2010, www.history.com/topics/inventions/invention-of-the-internet.

² Scalco, Dan. "4 Industries Surprisingly Being Disrupted by E-Commerce." *Inc.com*, Inc., 18 Jan. 2017, www.inc.com/dan-scalco/4-unexpected-industries-that-are-being-disrupted-by-e-commerce.html.

a significant portion of that cost goes toward the casket. Caskets on average cost \$2,300, reflecting a huge markup compared to their wholesale cost of roughly \$300.³ This expense was an unfortunate, yet unavoidable consequence of purchasing caskets at funeral homes. However, e-commerce led to sharp declines in casket prices due to the diversification and increased competition. Customers can now purchase significantly more affordable caskets online. The same narrative is true of so many other industries that have been fundamentally transformed by e-commerce. Pharmacies, used-car dealers, the film industry, and the list goes on.

Some industries, including the grocery market, are still in the midst of disruption. In 2015, only one percent of food and beverage sales were online.⁴ In 2019, this number rose to 6.3%.⁵ Food and beverage is currently one of the fastest growing product categories for e-commerce, with sales expected to grow 23.1% within the year.⁶ Further, these expectations do not include the implications of the novel Coronavirus. The virus' impact on demand for online grocery ordering is already taking place and will alter consumer behavior moving forward. No industry is immune to e-commerce; entrepreneurial minds will continue to find opportunities and transform industries. This thesis will examine e-commerce in two parts: First, I will analyze the

³ Scalco, Dan. "4 Industries Surprisingly Being Disrupted by E-Commerce." *Inc.com*, Inc., 18 Jan. 2017, www.inc.com/dan-scalco/4-unexpected-industries-that-are-being-disrupted-by-e-commerce.html.

⁴ Duncan, Eric. "Topic: U.S. Consumers: Online Grocery Shopping." *Wwww.statista.com*, www.statista.com/topics/1915/us-consumers-online-grocery-shopping/#:~:targetText=In%20total%2C%20U.S.%20online%20grocery,followed%20by%20Walmart%20and%20Kroger.

⁵ Ali, Fareeha. "2019 Ecommerce in Review: U.S. Online Grocery Sales." *Digital Commerce 360*, 20 Dec. 2019, www.digitalcommerce360.com/2019/12/24/2019-ecommerce-in-review-online-grocery-sales/.

⁶ "US Ecommerce 2019." *EMarketer*, www.emarketer.com/content/us-ecommerce-2019.

disruption of traditional retail by e-commerce and second, draw connection to the grocery industry and future implications of current trends.

Chapter III: E-commerce and Traditional Retail

Retail “disruption” dates back to the earliest days of commerce. Around 10,000 BC humans began practicing agriculture; subsequent technological advances allowed for the creation of a social surplus. Specialization emerged with individuals focused on producing certain types of goods, developing excess supply and creating the need for trade. The creation of money, an accepted medium of exchange, 9,000 years later, changed commerce and led to shops and markets.⁷ The rise of ships allowed for goods to be transported longer distances and even internationally, expanding the variety of products available. Soon, industrialization and urbanization allowed for mass production of goods and retail hubs in cities. Many years later, people created enclosed department stores with a variety of stores and services. These department stores, and roughly 100 years later the suburban mall, provided advantages over spread out downtown shopping; from a business optimization viewpoint, these shopping centers were better than the unplanned downtown layouts that lacked central control. They were able to place stores strategically to increase traffic and sales. From a customer viewpoint, they no longer had to deal with weather issues or long distances between the different stores they needed to visit. Malls stole sales from downtown main streets and shook the retail industry. Shortly after the development of department stores came mail order catalogs. Customers in smaller towns now had access to products they previously lacked. Customers were no longer confined to shopping for products in their immediate proximity. Eventually came the largest development in

⁷ Binnie, Lionel. *The Future of Omni-Channel Retail: Predictions in the Age of Amazon*. Emerald Lake Books, 2018.

overcoming the limitations of space and time and providing almost limitless optionality for retail customers: the creation of the internet and rise of e-commerce. This is the most recent, and some may say most profound, retail disruption.

In 1994, investment banker Jeff Bezos saw the growth potential of e-commerce and set out to capture the opportunity of this new disruption. Beginning with books, Amazon started changing all forms of retail directly or indirectly. In 2007, Steve Jobs and Apple gave Amazon and the rest of the e-commerce world the bomb they needed to destroy brick-and-mortar: the iPhone. Without the iPhone, e-commerce would have been limited to computers and Internet and thus a confined means of consumption. The iPhone changed the rules of retail forever giving customers more power than ever imaginable. Consumers now hold immediate and boundless access to goods around the world, wherever they are, and whenever they please.⁸

In 2019, physical retail sales totaled \$21.7 trillion while e-commerce sales reached only \$3.5 trillion. However, e-commerce sales are projected to double by 2023 with a 18% compound annual growth rate (CAGR), while physical retail continues to grow at a mere 2% CAGR.⁹ While there are a number of factors contributing to the outsized growth of e-commerce, this paper will examine three main drivers: the changing market dynamics of the retail space, new consumer behaviors, and the innate advantages e-commerce provides to consumers.

First, overall retail market dynamics drastically changed after e-commerce allowed companies to directly sell to the consumers. The retail space has shifted from one of limited competition, characterized by production chasing demand, single-product brands, and

⁸ Lewis, Robin, and Michael Dart. *The New Rules of Retail: Competing in the World's Toughest Marketplace*. Palgrave Macmillan, 2014.

⁹ "Activate." *Activate*, activate.com/#about.

department stores to one of fierce competition with relatively low barriers to entry, characterized by increased supply, mass markets, lifestyle branding, and instant gratification.

Before e-commerce, fewer brands existed due to high costs, and associated risks – of manufacturing, advertising, and retailing products. The lack of competitors gave pricing power to the manufacturers and retailers. Additionally, towns were poorly connected through transportation and communication leading to isolated markets. Thus, consumers, geographically spread out, had to settle for what was available to them. The department store, suburban malls, and mail order catalogs proved disruptive, each providing consumers with increased access, choice, and power.

The rise of the Internet and social media provided companies with direct access to consumers with an entirely new and targeted marketing platform. With reduced barriers came more and more brands. In 1980 there were six brands of blue jeans compared to 800 in 2010.¹⁰ By 2010, the new era of retail shifted power to the consumer with endless options on what to buy, when to buy it, and where to buy it.

Second, consumer behavior, and thus consumer demands, shifted with the rise of e-commerce and birth of millennials. Customers began demanding experiential shopping, customization, new and now, and technology for life. Customers are now more than ever willing to spend more money on experiences rather than just things. International research shows 76 percent of consumers would rather spend money on experiences than products.¹¹ Figure 1 also

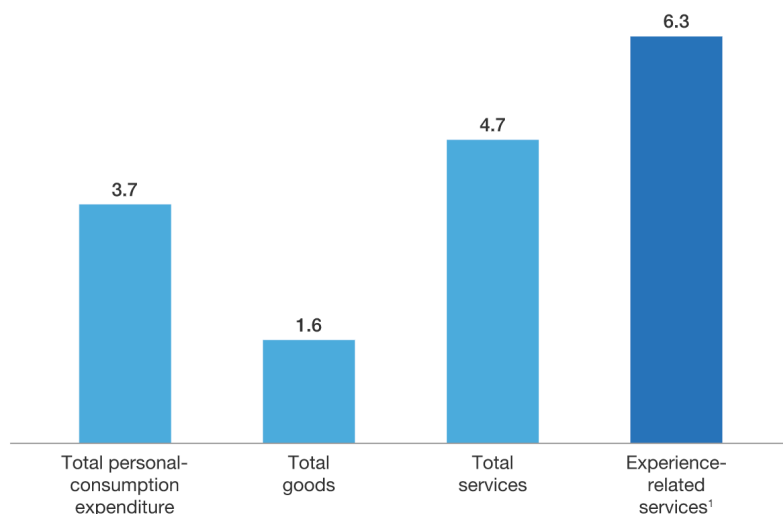
¹⁰ Lewis, Robin, and Michael Dart. *The New Rules of Retail: Competing in the World's Toughest Marketplace*. Palgrave Macmillan, 2014.

¹¹ Huffman, Mark. "New Study Finds Most Consumers Prefer Experiences over Things." *ConsumerAffairs*, www.consumeraffairs.com/news/new-study-finds-most-consumers-prefer-experiences-over-things-101519.html.

demonstrates the growing consumer consumption of experience-related services compared to products.

Figure 1:

Average Annual Personal-Consumption-Expenditure Growth, 2014-16, %



¹Experiences include the following Bureau of Economic Analysis service categories: membership clubs, sports centers, parks, theaters, events, museums, casino gambling, food service, accommodations, air travel, package tours, and foreign travel by US residents.

Source: US Bureau of Economic Analysis, McKinsey analysis

Thus, e-commerce platforms have to create an engaging experience to entice the customer to return more often. For e-commerce, visual display or flash sales fall under the “experiential” category.

Additionally, many customers value customization and differentiation over conformity. People want to stand out and thus look for customized items to be unique. Niche brands under larger brands that target different consumer segments help satisfy this consumer desire. For

example, Polo Ralph Lauren bought Club Monaco to offer a more affordable luxury brand targeted at a more modern, young, fashion conscious consumer.¹²

Another recent consumer fad is the notion of new and now. Studies show that consumers' brains release dopamine and serotonin when they discover something new. These chemicals leave the consumer feeling happy and wanting more.¹³ This trend is manifested in brands such as Zara which has pioneered fast fashion through supply-chain innovation to bring new inventory to their thousands of stores, and to consumers globally through their website, bi-weekly. Zara shoppers visit stores more frequently expecting to find different inventory each time and are more likely to make purchases on the spot in fear it might not be there next time they return. E-commerce giant – Amazon – forever altered consumers' expectations about delivery times, completely changing the meaning of new and now in the retail space. Customers can find new products online daily and receive them the following day.

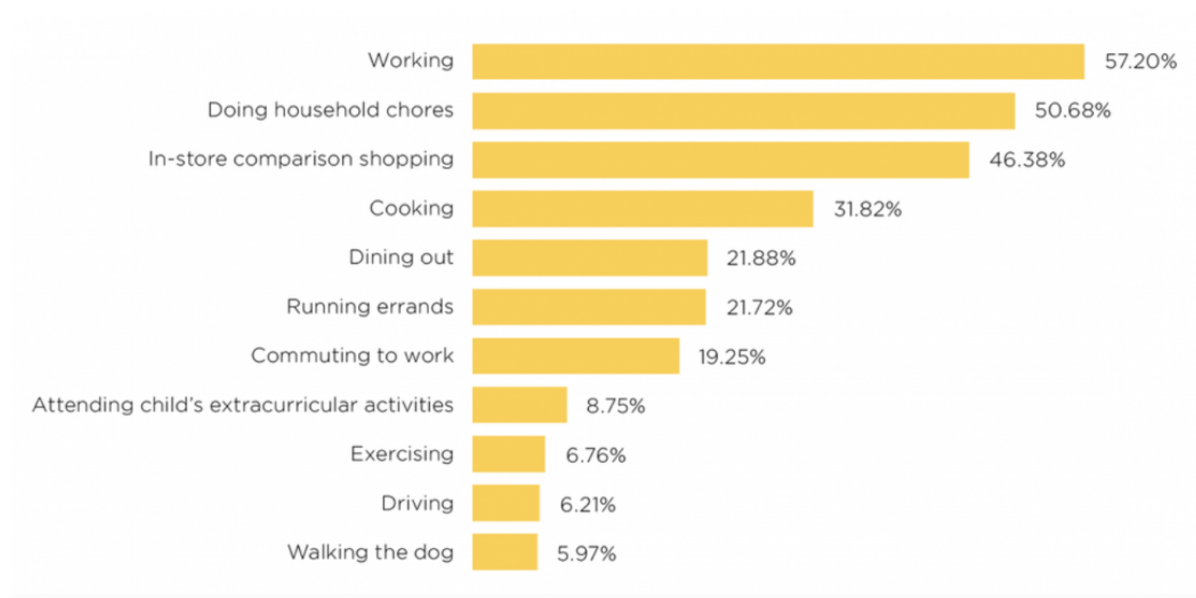
Lastly, technology today blurs the lines of life and work. People are working during off hours and playing during work hours. Thus, they expect to be able to make purchases or browse the web from wherever they are whenever they please. Figure 2 shows a breakdown of what consumers are also doing while they are online shopping. The new era of online shopping incorporates multitasking as consumers are more than ever mindful of their finite time. This phenomenon works to the advantage of e-commerce: the easiest platform for customers to make purchases while performing other day-to-day tasks.

¹² Lewis, Robin, and Michael Dart. *The New Rules of Retail: Competing in the World's Toughest Marketplace*. Palgrave Macmillan, 2014.

¹³ Parker-Pope, Tara. "This Is Your Brain at the Mall: Why Shopping Makes You Feel So Good." *The Wall Street Journal*, Dow Jones & Company, 6 Dec. 2005, www.wsj.com/articles/SB113382650575214543.

Figure 2:

What consumers do while online shopping



Source: Forbes

Third, e-commerce provides advantages for consumers that entice them to continue switching their purchasing habits to the web. These benefits will also continue to sustain e-commerce growth. The driving force for traffic to online shopping is the convenience it provides. Through personal experience, research and talking to consumers the main reasons people online shop all fall under a broad category of convenience: it saves time, it offers more variety, it allows for easy price comparisons, and it can reduce impulse buys. Online shopping allows customers to make purchases 24 hours a day. From wherever they are, consumers no longer have to worry about making it to the store after work when they can buy the same thing online in their pajamas from bed at 11 pm or 5 am. Additionally, the internet provides endless optionality with every brand and item you could dream of. If one vendor is out of stock of the size or color you desire,

you can switch from site to site to find what you need. Consequently, customers are able to compare and research products' pricing. The exact same shirt may be 100 dollars on one site and 30% off on another. Likewise, often the web provides better deals because products can come directly from manufacturers. Not only are prices better, but consumers can even save on taxes if online stores do not have physical stores in the state in which the purchase is made.¹⁴ The downside of price cuts and the endless inventory on the web is a race to the bottom with deals, flash sales, and loyalty programs eventually squeezing margins to death.¹⁵ Also, customers have more control when online shopping. They are not forced to spend money on more expensive items when their desired product is not in stock or end up purchasing products that sales associates pressure them into buying. Overall, customers place a huge emphasis on convenience and in some cases are willing to pay premiums for it.¹⁶

Market dynamics and consumer behavior have shifted power to the consumers who are increasingly opting for convenience and requiring companies to adapt in order to remain competitive. In order to survive under the new e-commerce regime, companies must provide omni-channel access, fast delivery times, lower prices, and improved technology.

The term omni-channel refers to an approach to retail sales making the customer experience as seamless as possible across all platforms: online, brick-and-mortar, social media, via telephone, or any other avenue that may emerge. This mixed channel technique aims to

¹⁴ Jain, Anamika S. "Top 10 Benefits of Online Shopping (and 10 Disadvantages)." *ToughNickel*, 31 Oct. 2018, toughnickel.com/frugal-living/Online-shopping-sites-benefits.

¹⁵ Lewis, Robin, and Michael Dart. *The New Rules of Retail: Competing in the World's Toughest Marketplace*. Palgrave Macmillan, 2014.

¹⁶ Sides, Rod, and Nithya Swaminathan. *Deloitte 2020 Retail Industry Outlook: Convenience as a Promise*.

provide the brand with the quickest and easiest access to consumers regardless of their shopping preferences. A McKinsey survey reveals the average omnichannel customer makes 70 percent more purchases and spends 34 percent more than their only offline counterpart.¹⁷ Therefore, retailers must embrace omni-channel distribution in order to increase revenues and profits. Further, to maximize market share, companies must not only provide customers with access to their brands however they want, but also quickly. Amazon forever altered customers' expectations about quick deliveries. A few years ago, consumers would be astonished to receive a package from China at all. Today, consumers expect to receive a package from China in 2 days for no extra charge.¹⁸ The importance of technology is twofold. For internal purposes, companies must improve their technological capacity to track inventory, forecast demand, and communicate through their different channels. Externally, companies must utilize technology, online or in stores, to improve customer experience. Lastly, given that e-commerce allows customers to comparison shop and find the best deals, most retailers must reduce costs, offer loyalty programs, or hold flash sales to stay competitive.

Not every retailer can give customers whatever they want, whenever they want it, through their desired channel at the lowest price possible and still remain profitable. Therefore, the industry has seen increased brand consolidation and the number of store closings continues to rise. CNN business reflects on this “retail apocalypse” citing roughly 9,300 retail store closures

¹⁷ About the author(s) Holly Briedis is an associate partner in McKinsey's Dallas office. “Ready to 'Where': Getting Sharp on Apparel Omnichannel Excellence.” *McKinsey & Company*, www.mckinsey.com/industries/retail/our-insights/ready-to-where-getting-sharp-on-apparel-omnichannel-excellence.

¹⁸ Pine, B. Joseph II., and Doug Stephens. *Reengineering Retail: the Future of Selling in a Post-Digital World*. Vancouver, 2017.

in 2019 alone.¹⁹ Almost all industries see consolidation at some point. Due to the increased difficulty in remaining profitable in retail, that time is now.

As illustrated in this chapter, much of traditional retail has been fundamentally disrupted and forever changed by the rise of e-commerce. Other sectors of retail, notably the grocery sector, are in earlier days of transformation. Today, grocery retailers face similar trends, competitive pressures, and evolving consumer behaviors. Over the next chapters, I will discuss the history and current state of e-commerce in the grocery space, the future growth potential, and the ultimate outcome of grocery e-commerce proliferation: the new grocery store model.

¹⁹ Meyersohn, Nathaniel. “More than 9,300 Stores Closed in 2019.” *CNN*, Cable News Network, 19 Dec. 2019, www.cnn.com/2019/12/19/business/2019-store-closings-payless-gymboree/index.html.

Chapter IV: Untapped opportunity for e-commerce – groceries

John Mackey, CEO and Founder of Whole Foods Market, described the future of grocery distribution as “people getting whatever they want, whenever they want it, wherever they want it, at a price they are willing to pay for it.”²⁰ Mackey, an entrepreneur and expert in his space, expects the grocery industry to continue integrating e-commerce. Before looking to the future of grocery e-commerce, it’s important to understand its history and current status. I will examine the two main phases of e-commerce in the grocery space: early pure play e-grocers, companies that sold only through the internet, and the new hybrid model of physical grocers with e-commerce platforms. I will present the main challenges the early movers, pureplay e-grocers, faced, why their business model failed, and how the hybrid approach appears more sustainable.

The majority of the original pureplay e-grocers in the late 1990s, such as Webvan.com, were technology companies, not supermarkets or food manufacturers. These companies were focused on disruption through software systems. They built expensive, highly automated warehouses around the country to house their inventory and fulfil their orders coming in through their online platform. The quick and large expansion of infrastructure needed to support the e-grocer business had severe negative effects on these companies’ balance sheets, leaving them over-leveraged and undercapitalized.²¹ When the dot-com bubble burst, their ability to access much needed capital disappeared, leaving many of the companies strapped for cash and forcing

²⁰ Mackey, John. “A Conversation with John Mackey.” VIP Distinguished Speaker Series presented by The Undergraduate Business Council. 29 Oct. 2019, Austin .

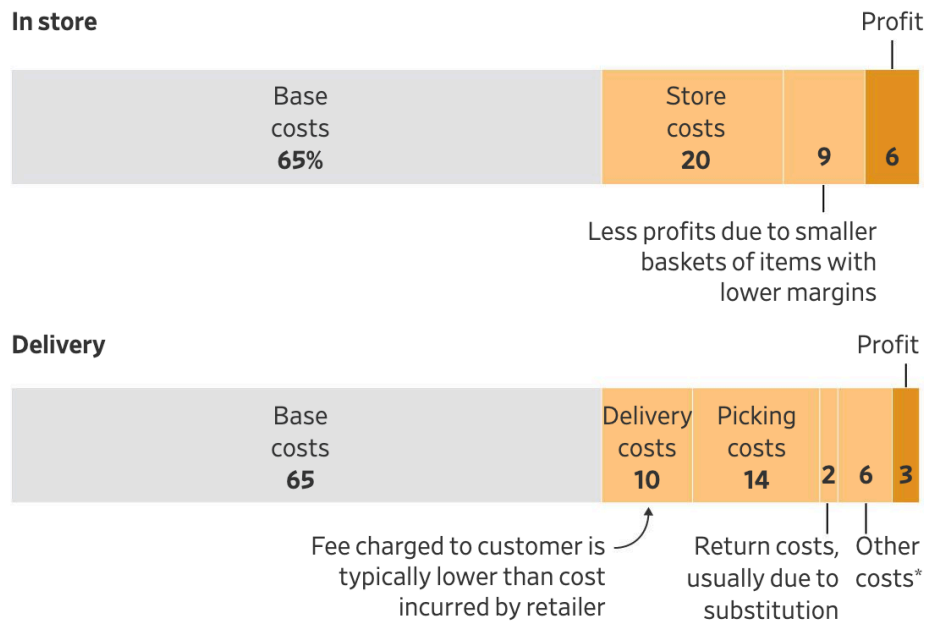
²¹ McLaughlin, Katy. “Back from the Dead: Buying Groceries Online.” *Wall Street Journal - Eastern Edition*, vol. 241, no. 38, 25 Feb. 2003, p. D1. *EBSCOhost*, search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=9159658&site=ehost-live.

some into bankruptcy. In hindsight, the failure of early pureplay e-grocers was inevitable due to their business models. The traditional brick and mortar grocery business is characterized by high volumes but low margins. While pureplay e-grocers might have slightly more pricing power than their brick and mortar counterparts, they face outsized costs. With online orders, retailers take on the responsibility for going to the store, picking the products from the shelves, and delivering them.²² Retailers now require more labor and time, but the customers are not willing to pay the real cost of these efforts. Figure 3 reflects the reduction in profit resulting from online grocery sales versus in store. As a result, early movers suffered extensive losses, and many were forced out of business.

²² Saunders, Neil, and GlobalData. "Online Grocery: Lessons From History." *OneSpace*, 23 May 2019, www.onespace.com/blog/2018/10/online-grocery-lessons-history/.

Figure 3:

Cost and Profit as a Percentage of Sales



Source: Wall Street Journal Article, McKinsey & Company

The new generation of e-commerce grocers have learned from their predecessors' mistakes and embarked on a hybrid business model. Today, the field is dominated by traditional grocery chains like Walmart, Whole Foods, Kroger, and Target. The new approach to online grocery shopping combines online purchasing with traditional supermarkets. Traditional grocery stores can leverage their existing infrastructure and logistics networks; instead of building warehouses and purchasing delivery van fleets, these companies use their existing stores as distribution centers. This new supply chain approach and cautious expansion keeps costs down. Further, traditional grocers have tremendous economies of scale allowing them to achieve higher margins and increase profitability of online purchases relative to the online only players.

Additionally, these companies can offer a range of online services including instore pickup, curbside pickup, or in-home delivery²³.

The top players in the e-grocery business today have successfully mitigated the main challenges faced by the pureplay e-grocers. These challenges include creating an online ordering service that saves the consumer time, overcoming negative perceptions of online grocery shopping, providing customers a short time window for delivery for them to be home, and providing online product pricing that is in line with in-store pricing.²⁴

E-commerce giant, Amazon, purchased upscale supermarket chain Whole Foods Market for \$13.7 billion in 2017.²⁵ Immediately, speculation started regarding Amazon's e-commerce plans for the supermarket. The purchase added 465 physical stores to Amazon's retail footprint to act as inventory and distribution center locations.²⁶ Further, acquiring Whole Foods allowed Amazon to expand its offering to include grocery delivery. The company can now deliver a wider variety of goods, faster given their access to the existing Whole Foods stores. Whole Foods offers Amazon Prime members free 2-hour delivery and free 1-hour in store pickup. The 2-hour delivery time is relatively close to the time it would take customers to drive to the nearest store, collect their items, check out, load their car, return home, and bring their groceries inside. Even if the 2-hour delivery time is slightly longer than the time it would take customers to

²³Saunders, Neil, and GlobalData. "Online Grocery: Lessons From History." *OneSpace*, 23 May 2019, www.onespace.com/blog/2018/10/online-grocery-lessons-history/.

²⁴ Wulfraat, Marc. "Finally, an e-Grocery Business Model That Makes Economic Sense." *Canadian Grocer*, 2014, www.canadiangrocer.com/blog/finally-an-e-grocery-business-model-that-makes-economic-sense-42971.

²⁵ Eadicicco, Lisa. "Why Amazon Bought Whole Foods." *TIME Magazine*, vol. 190, no. 1, July 2017, p. 11. EBSCOhost, search.ebscohost.com/login.aspx?direct=true&db=bth&AN=123734194&site=ehost-live.

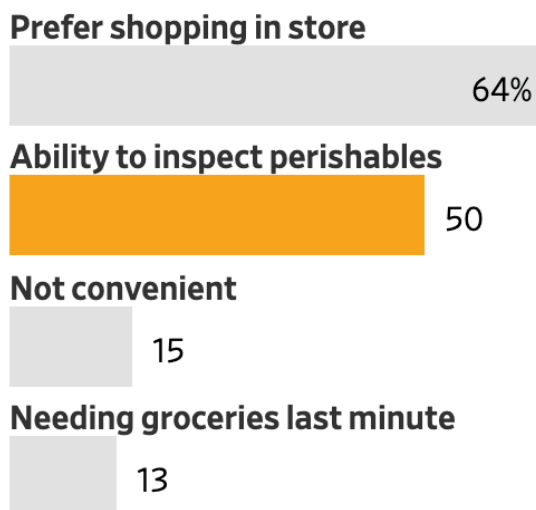
²⁶ (Eadicicco)

perform these tasks on their own, they are able to use this time for other things. Thus, the opportunity costs may encourage customers to opt for delivery.

The next challenge e-grocers have had to overcome is negative perceptions of online grocery shopping. One large issue relates to customers' concerns that the shopper collecting their items will not select items with the same care and attention as they would. What incentives do the Amazon shoppers have to select the best avocado or the milk with the furthest expiration date? Likely doing so would increase the time it takes to collect items and decrease the amount of orders one shopper can complete. As seen in Figure 4, a top challenge for online grocers is that customers' preference to inspect items themselves rather than relying on a store's picker.

Figure 4:

Top Reasons People Have Never Purchased Groceries Online



Source: Wall Street Journal Article, data from Cowen & Co. internet surveys of roughly 5,400 people who have never purchased groceries online conducted 3Q 2018.

Thus, companies must encourage shoppers to focus on these concerns. If store pickers select good products for the customers, the company will build a sense of trust with their consumers and drive customer retention. Another issue online grocers face is customer dissatisfaction with shoppers selection of substitutions when requested items are out of stock. Whole Foods online shopper, Kelly Hills, voices frustration with substitutions provided to her; she received jalapeño cheese bread instead of sourdough, decaf coffee instead of whole roasted coffee beans, and a single seltzer flavor rather than a variety pack.²⁷ Substitution issues, like those experienced by Kelly Hills, are amplified because the daily operations of Whole Foods and Amazon have yet to be fully integrated. The existing technology tracking inventory at Whole Foods is not always up to date. Thus, Amazon shoppers have trouble finding items and often seek out help from Whole Foods employees, taking time away from the other work they should be doing. Further, the technology is not capable of tracking in store inventory in real-time. Items listed as available online may not reflect actual inventory in the closest store. Employees then must make selections on computer recommendations that most likely will not line up with customers' preferences. Whole Foods attempts to mitigate these issues by allowing shoppers and customers to text; however, customers are not always available when their shopper is completing their order. To ease these challenges, Amazon will need to fully integrate their technology with Whole Foods and provide a real time inventory tracking system. The third challenge for e-grocers is reducing the time window in which customers must be home in order to receive their orders. If the time window gets too large, it might become too big of a burden on customers.

²⁷ Haddon, Heather. "Amazon to Whole Foods Online Delivery Customers: We're Out of Celery, How's Kale?" *The Wall Street Journal*, Dow Jones & Company, 24 Mar. 2019, www.wsj.com/articles/amazon-to-whole-foods-online-delivery-customers-were-out-of-celery-hows-kale-11553425200.

Amazon is going above and beyond to mitigate this concern for Whole Foods customers. The company began “in-home delivery” where Amazon employees deliver inside of customers’ homes while they are not there. Customers receive a 4-hour delivery window and are notified upon driver’s arrival. The customer is then able to watch the delivery happening live.²⁸ If customers are not comfortable with this option, they can opt for “attend delivery” where they receive their groceries in person or “doorstep delivery” left at the front door within a 2-hour window. Providing the option for delivery while customers are not home removed the issue of delivery windows completely.

Lastly, e-grocers must find a delivery price low enough that customers are willing to pay and high enough to remain profitable. Luckily for Whole Foods, Amazon, and customers, Prime members receive free delivery in exchange for their \$119-a-year subscription to Amazon Prime. Since there are a number of advantages to Prime membership separate from grocery delivery, this subscription fee is often worth the investment. Further, many potential AmazonFresh customers already have Prime subscriptions. Thus, Amazon can remain profitable and customers perceive their grocery delivery as “free”.

²⁸ “GP.” *Amazon*, Goettsche Partners, 2011, www.amazon.com/gp/help/customer/display.html?nodeId=202104360.

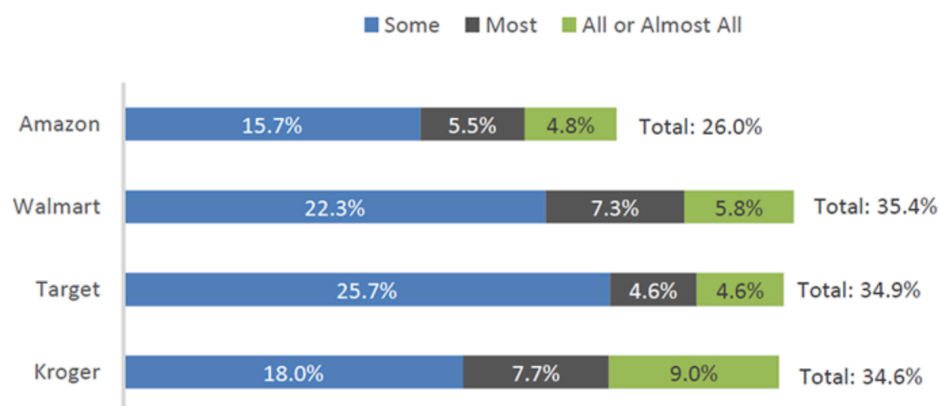
Chapter V: The Future of Grocery

In chapters two and three we examined both the past and present state of the grocery industry, in this chapter we look at the future of the grocery industry and analyze the growth outlook and potential for further disruption and innovation. According to research in May of 2019, the number of U.S. consumers who purchased groceries online in the past year has increased from less than one-quarter to well over one-third.²⁹ Figure 5 shows that approximately one third of internet users 18+ have bought at least some of their groceries online over the last 12 months. Further, between 2017 and 2018 the online grocer market doubled. This growth is expected to continue, the online grocery market is expected to more than double from 51.4 billion in 2020 to 117.0 billion in 2023 as seen in figure 6.

²⁹ Redman, Russell. "Study: Number of Online Grocery Shoppers Surges." *Supermarket News*, 14 May 2019, www.supermarketnews.com/online-retail/study-number-online-grocery-shoppers-surges.

Figure 5:

Online Grocery Shoppers at Selected Retailers: Proportion of Groceries Bought Online



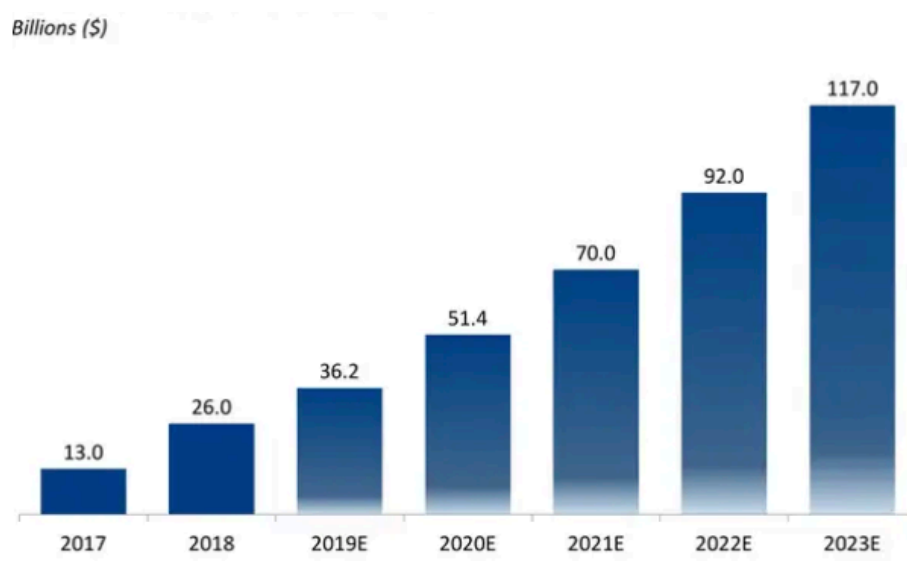
Totals may not sum due to rounding

Base: 695 US Internet users ages 18+ who have bought groceries online in the past 12 months

Source: Supermarket News, Coresight Research

Figure 6:

Online Grocery Market Forecast



Source: Business Insider Intelligence

Despite these reassuring facts, initial sentiment on the space counted grocery stores out for e-commerce disruption. Skeptics insisted old habits die hard and believed consumers would continue to travel to stores to browse the aisles and select which produce to purchase. Customers had initial doubts about purchasing books online too. Many believed consumers would never abandon habits of browsing the shelves and skimming the backs of books with a coffee in hand. However, Borders alone has closed 399 physical stores in the last decade³⁰. Since customers have already proven comfortable with purchasing packaged goods and non-perishables online, the skeptics should reassess their stance. Figure 7 shows at least 84% of online retail shoppers are already making non-perishable purchases online.

³⁰ Tyko, Kelly. "Retailers Lost in the Last Decade: Toys R Us, Sports Authority, Blockbuster, Borders and Payless." *USA Today*, Gannett Satellite Information Network, 29 Dec. 2019, www.usatoday.com/story/money/2019/12/29/decade-store-closings-biggest-retailers-lost-decade/2750954001/.

Figure 7:

US Digital Grocery Shoppers Who Purchase Perishable vs. Nonperishable Grocery Items Digitally, by Demographic, Aug 2019

% of respondents

	Perishables	Nonperishables
Male	46%	79%
Female	44%	88%
18-34	51%	83%
35-54	47%	89%
55+	37%	80%
Total	45%	84%

Source: eMarketer Ecommerce Survey conducted in August 2019

Eventually, as grocery online ordering becomes more commonplace, consumers will also purchase their meats, vegetables, and dairy online. A recent Forbes survey found consumers are already incorporating these practices into their shopping routine. Forty-eight percent of respondents said they already do or plan to purchase meat in the next year online, 55% buy or will buy bakery, dairy, deli, or frozen items online, and 53% purchase or will purchase fruit and vegetables online³¹. I will now examine the macro factors contributing to the current and future expansion of online grocery market.

³¹ Pearson, Bryan. "Research: Half Of Shoppers Buy Perishables Online, And It's Changing Customer Service." *Forbes*, Forbes Magazine, 14 June 2019, www.forbes.com/sites/bryanpearson/2019/06/14/research-half-of-shoppers-buy-perishables-online-and-its-changing-customer-service/#22db8c5b548f.

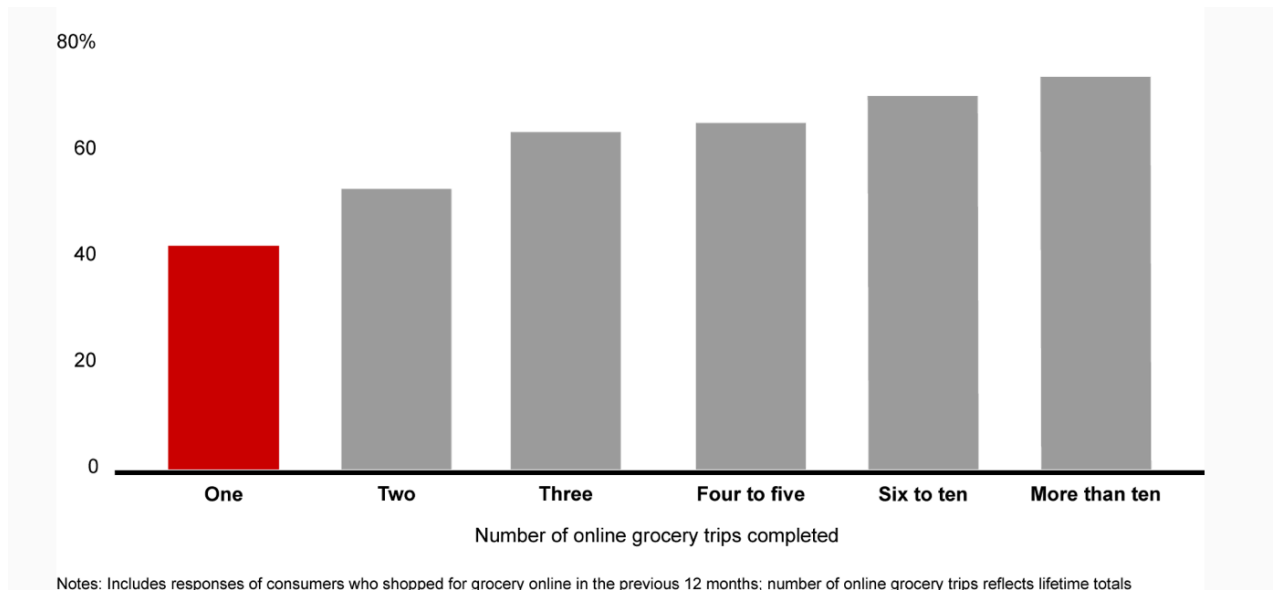
Several macro factors are contributing to the rapid growth of the grocery market. First, consumer behavior and expectations mirror those in the larger retail space and online grocery is particularly well positioned to capitalize on those trends. Consumers value experiences, customization, technology and quick access. Taking them in order – first, customers increasingly value experiences in the grocery store, which is already changing the current practices of physical stores. Whole Foods is a prime example of this; a large portion of the store layout is already dedicated to the hot bar, salad bar, ready-to-eat soups/salads/sandwiches, sushi bars, and even restaurants. Other grocery store experiences include cooking classes or product demonstrations, that show customers different ways to incorporate products into meals. Online grocery ordering also offers experiential shopping with deals and click-to-collect options. With customers placing more value on experiences rather than purchases in the physical store, their purchasing habits will shift more online. Second, consumers want customization while shopping. Whether it is online or in the store, personalization helps grocers acquire new customers and build loyalty to retain existing customers. For example, online platforms offer recommended products based on previous purchases that help speed up the process of online ordering or introduce customers to new products they may like. These modes of personalization will increase online ordering. Third, consumers have come to expect the incorporation of technology in the grocery experience. Whether it is cashier-less check-out, ordering online, or assistance in locating products in the stores, customers will demand integration of technology in their grocery shopping experience. Finally, grocery consumers, like in every industry, lack patience more than ever before. Customers want instant gratification. If they go into a physical grocery store, consumers want to find items quickly and seamlessly check out. If they order online, they want short delivery times or quick pick-up windows. Customers' desire for quick access to groceries

will lend to increased e-commerce since their locations and schedules will not get in the way of their online order deliveries.

Second, like in general retail, convenience matters. Grocery e-commerce provides customers specific advantages that are proving increasingly valuable. Online grocery shopping allows consumers to order whenever they want, wherever they are, and even while multitasking. Given this flexibility, it can often save time. If consumers purchase groceries online before leaving work, the groceries can be at consumers' doorstep by the time they get home. Comparatively, if consumers wait to get home from work and run to the store during rush hour, they can potentially waste two or three valuable hours of their day better spent elsewhere. Consumers can avoid the extra time spent roaming aisles trying to find products with easy search functions built into the online platforms; they can avoid the extra effort of carrying, loading, and unloading groceries with delivery options. Over 40% of first-time users believe online grocery ordering saves time and figure 8 shows this percentage only increases as consumers continue to order online. The value add of convenience will lead to increased online ordering over for consumers.

Figure 8:

Percentage of Online Grocery Shoppers who Agree that Online Saves Time



Source: 2018 Bain and Google Omnichannel Grocery Shopper Survey

Also, online grocery shopping saves money. Online grocery shopping reduces customer impulse buys. Consumers who order online skip out on roaming the grocery store aisles and impulsively grabbing candy or chips they never intended on purchasing. It is easier to stick strictly to your grocery list when purchasing online versus physical stores. Overall, online grocery ordering provides enough advantages to entice consumers to switch their shopping habits.

Additionally, unlike traditional online retail, online grocery shopping is not plagued by the hassle of returns. While only about 5-10 percent of items purchased in physical stores are

returned, items purchased online are returned at a rate of 15-40 percent. Clothes or other items ordered online often do not measure up to customer expectations. Many items do not fit properly or look different online than in person. With e-commerce spreading globally, experts expect returns to start costing retailers over a trillion dollars per year.³² Fortunately, the grocery industry, is relatively immune to these issues for several reasons. First, consumers often purchase the same groceries repeatedly and therefore know what they are getting. Second, grocery products, especially non-perishables, are less likely to create customer dissatisfaction. Any noodle, rice, or chip will do the job. Third, if customers were unsatisfied with an item, maybe a substitute item, they are very unlikely to return it or ask for a refund. Although all platforms offer this option, the added effort for a refund of a bruised one-dollar apple is often times not worth it to consumers. Because consumers don't have to worry about making returns and grocery retailers don't have to bear the financial concerns of returns, e-commerce will face less resistance in the grocery industry.

Lastly, many of the concerns people have with online grocery ordering will likely disappear as the industry continues to develop and mature. A main area of dissatisfaction with online ordering is the substitute products picked by shoppers when the item requested is not in stock.³³ Over time, as grocery stores continue to ramp up technology, they will have real time data on inventory, so consumers will know which products are actually available. Thus,

³² Reagan, Courtney. "That Sweater You Don't like Is a Trillion-Dollar Problem for Retailers. These Companies Want to Fix It." *CNBC*, CNBC, 12 Jan. 2019, www.cnbc.com/2019/01/10/growing-online-sales-means-more-returns-and-trash-for-landfills.html.

³³ Haddon, Heather. "Amazon to Whole Foods Online Delivery Customers: We're Out of Celery, How's Kale?" *The Wall Street Journal*, Dow Jones & Company, 24 Mar. 2019, www.wsj.com/articles/amazon-to-whole-foods-online-delivery-customers-were-out-of-celery-hows-kale-11553425200.

substitutions will become an issue of the past. Another downside to online ordering is available delivery windows. Consumers may find the two-hour delivery windows too long or do not know exactly when they will be home to set up these times. However, as grocery stores continue to integrate delivery and online orders into their business models, delivery windows should significantly shrink and as comfort increases, deliveries will likely be made while consumers are not even home. As the industry continues to grow and evolve, I believe these issues will resolve themselves, further fueling adoption of online grocery shopping.

Again, consumer behavior, market dynamics, and continued development will all contribute to the continued growth of grocery e-commerce. I will now outline the four major changes I expect to see in the space: a large increase in online grocery ordering, an omni-channel distribution for grocery retailers, consolidation and reduction in number of grocery retailers, and a change in purpose and layout of physical grocery stores.

Increased Online Ordering

Roughly eight of every ten Americans online shop in some capacity today³⁴. Due to the large consumer base already making purchases online and growing comfort with all forms of online purchases, I expect all consumers will make majority of their grocery purchases online within the next 20 years. Since online grocery ordering doubled in one year and overall retail e-commerce sales are expected to reach 22% of total sales by 2023, a 20-year timeline seems

³⁴ Smith, Aaron, and Monica Anderson. "Online Shopping and E-Commerce." *Pew Research Center: Internet, Science & Tech*, Pew Research Center, 31 Dec. 2019, www.pewresearch.org/internet/2016/12/19/online-shopping-and-e-commerce/.

appropriate.³⁵ Further, due to the infrastructure changes grocery retailers will need to make (such as building more automated warehouses), timing will be closer to 20 years than ten as grocers prepare for increasing demand.

Omni-channel distribution

In ten years, all grocery stores will offer omni-channel distribution. Even today, most large grocery players have some e-commerce footprint. Figure 9 details five major grocery chains and their e-commerce offerings. Moving forward, if consumers cannot order online from the store they currently shop at, they will switch to a new one. All grocery stores will be forced to build up their e-commerce offerings or lose out.

³⁵ “Activate.” *Activate*, activate.com/#about.

Figure 9:

Large Grocery Players' Competitive E-commerce Offerings

Albertsons	<ul style="list-style-type: none">• As of Q1 2019, grocery delivery available in 11 of the top 15 metropolitan statistical areas, with ~1,000 delivery vehicles from ~2,000 stores• Drive Up & Go available at 500 stores (as of October 2019), with expansion expected throughout 2020• Real-time status of grocery deliveries and pickup orders available through partnership with location-sharing company Glympse
Amazon	<ul style="list-style-type: none">• Delivery of Whole Foods Market products through Prime Now in ≥ 1 hour available in 75 metropolitan areas as of April 2019• Grocery pickup from Whole Foods Market through Prime Now app available in 30 metropolitan areas (free within 1 hour on $\geq \\$35$ purchase; \$4.99 for 30-minute pickup window) as of April 2019
Kroger	<ul style="list-style-type: none">• Partnered with Ocado to build 20 “sheds” for online fulfillment centers and also partnered with Nuro to offer unmanned grocery-delivery service• Grocery delivery available from >2,300 locations and pickup available at >1,900 locations as of December 2019• Delivery or pickup services available to 96% of Kroger shoppers
Target	<ul style="list-style-type: none">• Same-day delivery through Shipt available in >250 markets and >1,500 Target stores (some delivered in ≤ 2 hours)• As of January 2020, drive-up service available at nearly 1,750 stores across all 50 US states
Walmart	<ul style="list-style-type: none">• Offers pickup of online grocery orders from nearly 3,100 US locations and delivery from ~1,600 stores• As of fall 2019, Delivery Unlimited service allowing customers to pay a membership fee for unlimited deliveries is offered from 1,400 stores• In January 2020, unveiled its automated grocery picking robot, the Alphabot

Source: Company websites; earnings transcripts; media sources, including *Supermarket News*; public filings

Source: McKinsey & Company

Consolidation

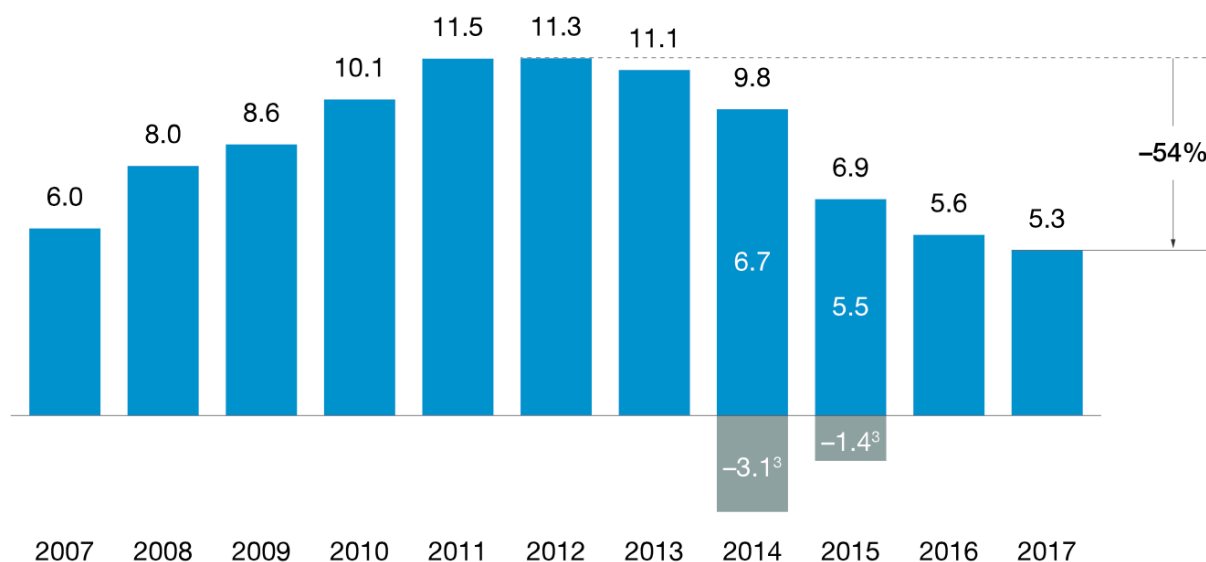
In ten years, only a handful of companies will remain in the grocery store industry. America is currently over retailed. Looking exclusively at the grocery sector, the amount of retail space in

the U.S. allocated specifically to food retail has increased 30 times since 1950.³⁶ The industry has too much supply, building stores quicker than consumers can spend in them. Further, with the growth of e-commerce, physical retail is not the only way to increase market share. As companies' sales per square foot decline and online orders increase, there will be a rise in store closings. Additionally, only a handful of grocers will be able to offer everything the consumer demands and still make profit. Those grocers that cannot, will go out of business or be acquired by those that can. It seems likely that the survivors of consolidation will be large, early e-commerce and automation adapters. First, large grocers have scale on their side. With the current model of physical grocery stores serving as fulfillment centers, the more stores a grocer has, the larger their delivery radius is. These large food retailers are able to leverage their existing infrastructure and network whereas smaller retailers would require significant investment. Second, first movers are at an advantage by building up customer loyalty and setting industry expectations. Just as Amazon set customer expectations on delivery times with Prime, grocers have the opportunity to set the e-grocer industry standards. Lastly, the few that survive will be champions of automation. For the past decade the grocery industry's profits have eroded. As commodity and labor prices increased and retail prices remained low due to threats from discount chains, between 2012 and 2017 more than 50 percent of the grocery sector's profits disappeared as seen in figure 10. Those players that keep healthy margins by reducing labor costs with robots will be able to weather the storm.

³⁶ Binnie, Lionel. *The Future of Omni-Channel Retail: Predictions in the Age of Amazon*. Emerald Lake Books, 2018.

Figure 10:

Economic Value Add of Publicly Traded Grocery Retailers, \$ billion



¹(ROIC – WACC) * IC: return on invested capital minus weighted average cost of capital, multiplied by invested capital.

²Analysis of 27 largest publicly traded grocery retailers worldwide.

³Losses from Tesco accounting issues.

Source: McKinsey & Company

A Different Physical Grocery Store

As a majority of grocery sales move to online and the grocery retail footprint shrinks, the physical grocery store will likely look and function very differently. First, physical grocery stores will be significantly smaller. With grocery orders moving online, that inventory will be held in highly automated warehouses. The shift to these fulfilment centers will improve margins for the industry as robots replace human labor. Further, the current fulfilment centers are large retail grocery stores in expensive urban real estate. The new warehouses will be able to take

advantage of less expensive real estate, space optimization with no customers roaming aisles, and reduced labor costs as robots will compile orders. Eventually, grocery deliveries could be made by autonomous vehicles or drones, almost completely eliminating the need for human labor. Walmart, Kroger, and other grocery retailers are already preparing for these moves. Walmart began testing with autonomous Toyota Prius delivery vehicles outfitted with Nuro Inc. self-driving software to bring customers their groceries in Houston, Texas. This early stage testing will have a driver in the vehicle but will eventually move to carrying only products and be controlled remotely.³⁷ Kroger conducted a similar unmanned delivery pilot program in Scottsdale, Arizona. Kroger reflected on the program citing an “immense appetite for affordable, safe and convenient delivery options” from customers and concluded the response from their customers to the program was “phenomenal”.³⁸ These companies, and others, are taking meaningful steps to prepare for the future of grocery delivery.

With the eventual introduction of warehouses, the remaining stores will go from an average of 40,000 square feet to 10,000.³⁹ Reduced sizing will offer financial relief for grocery stores, who will have significant lease expenses. The slow downsizing in current physical stores will help provide capital for warehouse investment. Without the need for large amounts of inventory, the stores will offer a different experience. First, the stores will offer smaller produce,

³⁷ Barnes, Tommy, and Bloomberg News. “Walmart to Deliver Groceries Using Autonomous Vehicles.” *Digital Commerce 360*, 12 Dec. 2019, www.digitalcommerce360.com/2019/12/12/walmart-to-deliver-groceries-using-autonomous-vehicles/.

³⁸ Wiles, Russ. “Kroger Ends Its Unmanned-Vehicle Grocery Delivery Pilot Program in Arizona.” *USA Today*, Gannett Satellite Information Network, 17 Mar. 2019, www.usatoday.com/story/money/2019/03/17/kroger-ends-unmanned-vehicle-grocery-delivery-pilot-program-arizona/3194604002/.

³⁹ Conway, Jan. “Whole Foods Market's Average Store Size Worldwide, 2017.” *Statista*, 27 Feb. 2020, www.statista.com/statistics/258684/whole-foods-markets-average-store-size-worldwide/.

bakery, meat, seafood, and dairy sections. Much like the pre-industrialization and urbanization days, consumers will still visit the meat shop, bakery, or pick out fresh fruit and vegetables in their local (now urban) neighborhoods. These sections of the grocery store will shrink as many consumers will purchase those products only online. The stores will also offer expanded prepared meals and hot bar sections. The stores will take on more of a restaurant role, frequently visited for lunch and dinner. Grocery stores will once again become a place most people buy their lunch and dinner, increasing revenues for the industry.⁴⁰ Similarly, the grocery stores will offer other experiences such as cooking classes, wine tastings, or new product demonstrations, giving consumers the participatory shopping experience they crave. Finally, the packaged goods section will all but disappear, with a small selection of consumer packaged goods inventory on rotation for consumers to discover and browse. Similar to successful food retailer, Trader Joe's Market, grocery stores will market new products, either from their own private label brands or independent brands, for consumers to discover in physical stores. Some regular online grocery shoppers voice frustrations with falling into a "rut" of purchasing the same products over and over again. The new grocery stores will provide the sensory experience consumers crave by offering these new products to serve as new ingredients, meals, and ideas.⁴¹ All checkout at the store will be cashier-less. Some will offer self-checkout while others may have "Amazon Go"-like capabilities – no checkout at all. Customers simply scan into the store from their Amazon app, grab what they want, and walk out of the store.⁴² In the future, the physical store will

⁴⁰ About the author(s) Dymfke Kuijpers is a senior partner in McKinsey's Singapore office. "Reviving Grocery Retail: Six Imperatives." *McKinsey & Company*, www.mckinsey.com/industries/retail/our-insights/reviving-grocery-retail-six-imperatives.

⁴¹ About the author(s) Steven Begley is a partner in McKinsey's New Jersey office. "Digital Disruption at the Grocery Store." *McKinsey & Company*, www.mckinsey.com/industries/retail/our-insights/digital-disruption-at-the-grocery-store.

⁴² Amazon Website

survive for the same reason all brick-and-mortar physical retail may change, but will never completely disappear: our desire for human interaction. The new grocery store will be an opportunity for customers to interact with one another and the grocery store brand. Families will meet up to grab a quick dinner, a couple will sit for a glass of wine, coworkers will attend a cooking class, and a young mom will converse with a sales rep on the healthiest alternative to peanut butter. This is the future of our grocery stores.

Yet still, when I tell my grandchildren that I used to sit at home and select my groceries online, manually entering my credit card information, patiently waiting for someone to collect them, and then delivering them to me in a petroleum-powered car, they will laugh and wonder how I ever survived.

Chapter VI: COVID-19

At the end of 2019, a novel infectious disease, COVID-19, started in China and quickly spread across the globe. The virus causes a respiratory illness with ranging severity; some patients are asymptomatic, and others die. Common symptoms include fever, cough, shortness of breath and the virus can take anywhere from two to fourteen days to develop after exposure. Although much is still unknown about the virus, it appears to be incredibly contagious. The coronavirus spreads mostly from person-to-person often through the infected person's cough, sneeze or a surface they have touched.⁴³ Sources say the virus can live on a range of surfaces including metal, cardboard, and cloth for many hours. Unlike Ebola, or other pandemics that preceded it, COVID-19 can be transmitted by asymptomatic carriers, introducing a major complexity to containment. As the number of cases and deaths quickly rose, panic swept the globe, leading to, in many countries, national lockdowns. Restaurants, bars, offices, shops, and large public gathering spaces closed their doors. It quickly became clear in the U.S. that citizens would be at home for an extended period of time. Due to the uncertainty, people rushed to grocery stores to stock up on canned items, toilet paper, water, and other goods that would last them in case they were not able to leave their homes. As more information surfaced about the virus and conditions worsened in other countries, more and more Americans tried to limit leaving their homes in order to reduce their chances of contracting the virus. Consumers looked to the internet to order groceries as a way to avoid crowds and the oftentimes empty shelves at physical stores. As of April 7, 51% percent of shoppers had placed an online order in the last

⁴³ "Coronavirus Disease 2019 (COVID-19)." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, www.cdc.gov/coronavirus/2019-ncov/index.html.

month, and 33% of those orders were first-time online orders.⁴⁴ Visible in Figure 1, downloads of Instacart and Walmart’s grocery app increased by 218% and 160% respectively on March 15th compared with average daily downloads in February.⁴⁵

Figure 11:

Daily Downloads of Grocery Delivery Apps, U.S.



Source: Apptopia app tracking

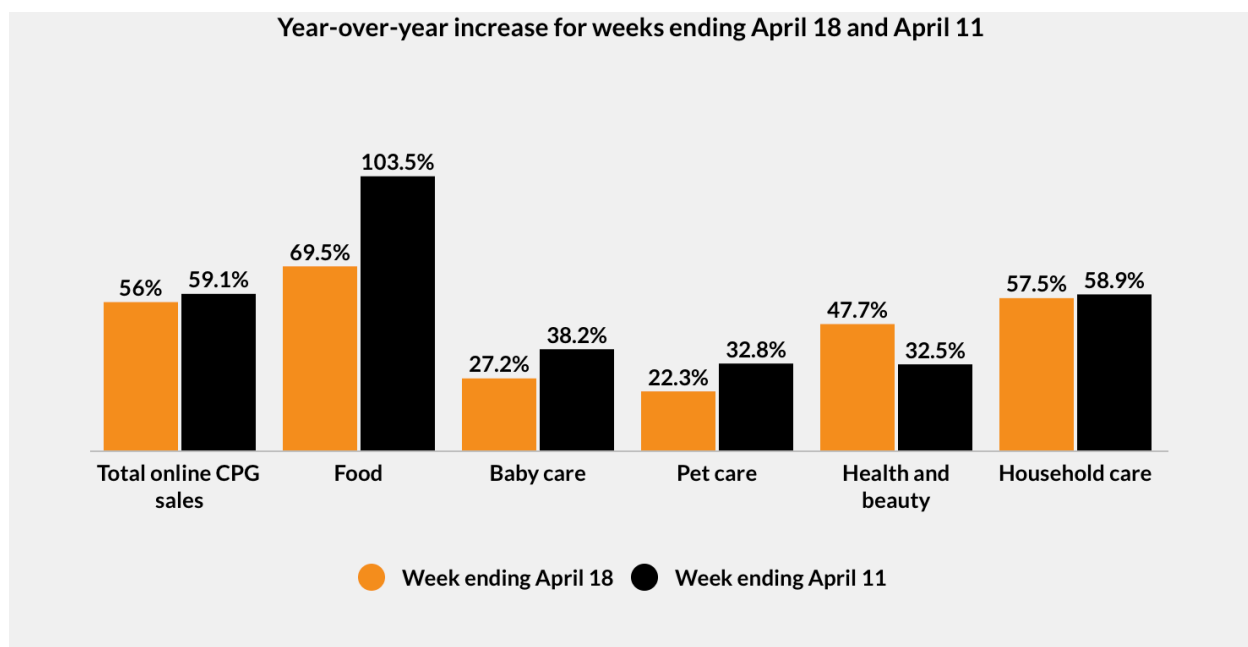
⁴⁴ Melton, James, et al. “Grocery Retailers Adapt as Coronavirus Upends Shopping Patterns.” *Digital Commerce 360*, www.digitalcommerce360.com/article/coronavirus-impact-online-retail/.

⁴⁵ *Coronavirus Could Be Changing Grocery Shopping Forever*, www.msn.com/en-us/money/companies/coronavirus-could-be-changing-grocery-shopping-forever/ar-BB11pMiE.

This spike in new users of online grocery ordering will have tremendous effects on how consumers make grocery purchases moving forward. One of the biggest obstacles for online grocery ordering is expanding their customer base. A majority of people are used to their normal habit of shopping in physical stores and lack incentives to switch to online. Coronavirus provided the perfect incentive for customers to switch. In just one week (the week ending April 18), online U.S. sales of consumer-packaged goods rose 56%.⁴⁶ Figure 3 shows year-over-year increases in online ordering broken down by category for the same period in 2020 compared to 2019. Online food sales have drastically jumped more than any other product category.

Figure 12:

Growth in Online Consumer Packaged Goods Sales by Category



⁴⁶ Melton, James, et al. "Grocery Retailers Adapt as Coronavirus Upends Shopping Patterns." *Digital Commerce 360*, www.digitalcommerce360.com/article/coronavirus-impact-online-retail/.

However, the surge in demand was beyond anything these online platforms could have imagined. The number of U.S. households that ordered groceries online almost doubled in just one month. Thus, the e-commerce avenues were unprepared. They lacked the infrastructure to fulfill orders coming in and consumers started having difficulty getting deliveries. Many platforms are taking measures to expand their capacity. Instacart announced March 23rd plans to hire 300,000 workers over the coming months to deal with the huge surges in demand.⁴⁷ Other food retailers have made similar moves: Amazon announced its plans to hire 100,000 additional workers; Walmart, 150,000.⁴⁸ When the pandemic slows and normal life resurfaces, will people rush back to grocery stores or will they continue their new online ordering habits they discovered during this crisis? 31% of U.S. shoppers said they would be very likely to continue using online ordering platforms after the pandemic is over. More importantly, 50% of millennials, the core future customer base for online groceries, reported they will continue to order online.⁴⁹ In my opinion, Coronavirus will be the turning point in grocery e-commerce's history, making it the new normal for how consumers shop.

⁴⁷ O'Brien, Sara Ashley. "Instacart Plans to Hire 300,000 More Workers as Demand Surges for Grocery Deliveries." *CNN*, Cable News Network, 23 Mar. 2020, www.cnn.com/2020/03/23/tech/instacart-hiring/index.html.

⁴⁸ McLean, Rob. "Walmart Wants to Hire 150,000 Temporary Workers as the Coronavirus Pandemic Continues." *CNN*, Cable News Network, 20 Mar. 2020, www.cnn.com/2020/03/20/business/walmart-hiring-coronavirus/index.html.

⁴⁹ Melton, James, et al. "Grocery Retailers Adapt as Coronavirus Upends Shopping Patterns." *Digital Commerce 360*, www.digitalcommerce360.com/article/coronavirus-impact-online-retail/.

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